

ABSTRACT OF THE DISCLOSURE

A process of preparing a biogenic silica comprising the steps of incinerating a silica bearing organic source at a temperature up to 1200°C and allowing the incinerated silica organic source to cool; adding the incinerated and cooled silica bearing organic source to an alkaline solution that has either been preheated to a temperature up to about 65°C or to be heated with the added organic source to a temperature up to about 65°C, the alkaline solution being contained in a vessel and having a pH up to 14; applying heat so that the added organic source and the alkaline solution in the vessel are at a temperature between 100°C and up to about 300°C for 1 to 4 hours, thereby forming an aqueous biogenic silica and undissolved impurities derived from the added organic source; and extracting the aqueous biogenic silica from the vessel. The extracted silica can be solidified into a solid form.